

550, 267

Rec'd PCT/PTO 20 SEP 2005

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

10/550267

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
30 September 2004 (30.09.2004)

PCT

(10) International Publication Number
WO 2004/083209 A1

- (51) International Patent Classification⁷: C07D 471/10, 311/24, 405/14, 401/12, 401/14, A61K 31/438, A61P 3/04, 15/00, 25/22, 25/24
- (21) International Application Number: PCT/EP2004/002907
- (22) International Filing Date: 19 March 2004 (19.03.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 03006254.1 20 March 2003 (20.03.2003) EP
- (71) Applicant (for all designated States except US): MY-CONTRACT LTD. [CH/CH]; Hammerstrasse 25, CH-4410 Liestal (CH).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): SOEBERDT, Michael [DE/DE]; Fecampring 28, 79618 Rheinfelden (DE). WEYERMANN, Philipp [CH/CH]; Auweg 35, CH-4450 Sissach (CH). VON SPRECHER, Andreas [CH/CH]; Nelkenweg 1, CH-4104 Oberwil (CH).
- (74) Agent: GOLDBACH, Klara; Grünecker, Kinkeldey, Stockmair & Schwanhäusser, Maximilianstrasse 58, 80538 München (DE).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— with international search report
— with amended claims

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.



WO 2004/083209 A1

(54) Title: SUBSTITUTED PIPERIDINE AND PIPERAZINE DERIVATIVES AS MELANOCORTIN-4 RECEPTOR MODULATORS

(57) Abstract: The present invention relates to novel substituted piperidine and piperazine derivatives as melanocortin-4 receptor (MC-4R) modulators. MC-4R agonists of the invention can be used for the treatment of disorders and diseases such as obesity, diabetes, and sexual dysfunction, whereas the MC-4R antagonists are useful for the treatment of disorders and diseases such as cancer cachexia, muscle wasting, anorexia, anxiety and depression. All diseases and disorders where the regulation of the MC-4R is involved can be treated with the compounds of the invention.